Statewide: Bridge Scour Monitoring and Retrofit Program FY2008 Request: \$800,000 Reference No: 36190

AP/AL: Allocation Project Type: Construction

Category: Transportation

Location: Statewide **Contact:** John MacKinnon

House District: Statewide **Contact Phone:** (907)465-6973

Estimated Project Dates: 07/01/2007 - 06/30/2012 **Appropriation:** Surface Transportation Program

Brief Summary and Statement of Need:

Install monitoring and telemetry and/or construct physical scour countermeasures at State bridges identified as scour critical by the federally mandated Scour Evaluation Program. This project contributes to the Department's Mission by reducing injuries, fatalities and property damage and by improving the mobility of people and goods

Funding:	FY2008	FY2009	FY2010	FY2011	FY2012 F	-Y2013	Total	
Fed Rcpts	\$800,000						\$800,000	
Total:	\$800,000	\$0	\$0	\$0	\$0	\$0	\$800,000	
✓ State Match Required ☐ One-Time Project			☐ Phased - new		☐ Phased - underway	✓ On-Going		
9% = Minimum State Match % Required			☐ Amendment		☐ Mental Health Bill			
Operating & Maintenance Costs:					Amount			
Project Development:				0	0			
Ongoing Operating:				0	0			
One-Time Startup:				0				
Totals:				Totals:	0		0	

Additional Information / Prior Funding History:

FY2007 - \$800,000; FY2006 - \$1,300,000; FY2005 - \$1,000,000; FY2004 - \$1,000,000; FY2003 - \$1,000,000; FY2002 - \$1,150,000; FY2001 - \$1,150,000.

Project Description/Justification:

Floods scouring streambed material from around bridge foundations is the most common cause of bridge failures. A national bridge scour evaluation program was established by FHWA (Federal Highway Adminstration) in 1988 to reduce damage and loss of life. As part of this federally mandated program, bridges that are "scour-critical" (foundation rated as unstable based on observed or calculated conditions) must have the vulnerable component protected with a scour countermeasure, or be replaced.

This project provides scour-critical bridges with scour countermeasures. These countermeasures range from increased inspection, to continuous monitoring, to installations that counteract the scouring process, depending on the severity of scour at a particular site. Additionally, this project provides for limited re-evaluation of scour-critical bridges as new information becomes available.

So far, 149 bridges in Alaska have been identified as scour critical. Of these, 63 are either not owned by the State, or are considered lower risk. These can rely on normal inspections to monitor scour condition. Of the remaining bridges, 35 require an increased frequency of scour inspection, 25 require continuous monitoring, and 26 require a physical countermeasure to be installed. This funding level allows for increased scour inspections, and installation of approximately five to eight monitors or physical countermeasures per year.